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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,203	11/25/2003	Corey A. Salzer	27441.010	6809
36122	7590	04/12/2006	EXAMINER	
SETTER OLLILA, LLC 2060 BROADWAY SUITE 300 BOULDER, CO 80302			KIM, PAUL D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,203

Applicant(s)

SALZER, COREY A.

Examiner

Paul D. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some *c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is a response to the amendment filed on 2/2/2006.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Higson (US PAT. 6,083,366).

Higson teaches a process of making a sensor comprising steps of: providing a substrate; printing conductive ink on the substrate to form a plurality of electrode regions (equivalent with a micro-electrode array); depositing an electrical insulation (insulating polymer) to cover one of the electrode regions (a planar electrode); sonically ablating the electrical insulation to form an array of pores through the electrical insulation to the conductive ink in the one electrode region; and depositing metal (equivalent with conducting organic polymer) with into the pores to form an array of electrodes in the one electrode region (see also col. 1, line 49 to col. 2, line 32). The conducting organic polymer should have metallic elements mixed with polymer, which is capable of having an electrical conduction between electrodes.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Alternatively, Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higson in view of Uchida et al. (US PAT. 4,464,244).

If applicant still does not agree with the conductive organic polymer having metallic elements mixed with polymer, which is not the same with metal, then Uchida et al. teach a process of making a sensor including a process of filling holes (15) with a conductor in order to electrically connect inner electrodes with outer electrode as shown in Figs. 1 and 2 (see also col. 4, lines 1-7).

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the conductive organic polymer of fabricating a sensor of Higson by a conductor as taught of Uchida et al. in order to electrically connect between electrodes.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to apply the metallic material as recited in the claimed invention because Applicant has not disclosed that the metallic material as recited in the claimed invention provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with

either Uchida et al. because the metallic material as recited in the claimed invention would perform equally well such as electrically conductivity to connect between electrodes in Uchida et al. Therefore, it would have been an obvious matter of design choice to modify the metallic material of Uchida et al. to obtain the invention as specified in claims 2-10.

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higson, modified by Uchida et al. and further in view of Hall et al. (US PAT. 4,242,379).

Higson, modified by Uchida et al., teaches all of the limitations as set forth above except to treat the metal with thiol. Hall et al. teach an acid inhibitor including a process of treating a metal with a chemical solution such as thiol (as per claim 12) in order to prevent corrosion (see also col. 2, lines 55-61). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the metallic material of Higson, modified by Uchida et al., by treating the metal with thiols in order to prevent corrosion.

Response to Arguments

6. Applicant's arguments filed 2/2/2006 have been fully considered but they are not persuasive. Applicant argues that the prior art of Higson fails to use the metal to form an array of electrodes. Examiner traverses the argument that the conducting organic polymer used in Higson should have metallic elements mixed with polymer, wherein the metallic elements mixed with polymer should of have an electrical conduction between

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electrodes. On the other hand, even though the claimed invention recites the metal used to form the array of electrodes, it is so broad to determine what the metal actually is. The conducting organic polymer used in Higson contains the metal capable of electrically connecting between electrodes. Also, Uchida et al. teach a process of filling holes with a conductor in order to electrically connect between electrodes.

Even though Applicant argues that the metal in the pores provides better sensitivity than a conducting organic polymer for some applications, but not applied all of the applications. The present claimed invention does not recite the limitations for the specific application. Therefore, the conducting organic polymer performs equally well with the metal. In addition, it is to be expected that a small change in physical attributes would be an unpatentable modification. Under some circumstance, a small change in physical attributes may impact patentability to a process if particular ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from the result of the prior art. Such ranges are termed "critical" ranges, and the applicant has the burden of proving such criticality. However, even though applicant's modification results in great improvement and utility over the prior art, it may still not be patentable if the modification was within the capabilities of one skilled in the art. More particularly, where the general conditions of claims are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In this instance applicant has failed to establish the metal as claimed is critical from the prior art.

NOTE: Definition.

conductor: a material or object that permits an electric current to flow easily by Merriam Webster Dictionary.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Friday between 6:00 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul D Kim
Examiner
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